

STABILIZED COENZYME SOLUTIONS

The invention concerns stabilized aqueous solutions of a coenzyme for hydrogen-transferring enzymes and their use for determining a corresponding analyte (substrate) in a reduced form or for determining the enzyme activity of a corresponding dehydrogenase. The stabilized solution contains an organic compound or appropriate salts having a pKa value between 1.5 and 6.0 and/or a hydroxylamine derivative.

The determination of enzyme activities (or substrate concentrations), especially in blood serum or plasma, plays an important role in clinical chemical diagnostics. Test procedures are often used for this which are based on the reduction of nicotinamide adenine dinucleotide ("NAD") or nicotinamide adenine dinucleotide phosphate ("NADP") and photometric detection of the resulting change of the absorption behaviour in the ultraviolet wavelength range ($\lambda = 334, 340$ or 365 nm). When suitable test conditions have been selected, this change is linearly proportional to the enzyme activity (or substrate concentration) to be determined.

Nowadays the methods described in Eur. J. Clin. Chem. Clin. Biochem. 31, 897 (1994) and Eur. J. Clin. Chem. Clin. Biochem. 32, 639 (1994) are generally recommended for determining the enzyme activity of for example lactate dehydrogenase (LDH, E.C.1.1.1.27). The test